

CLAIMS:

- 5 1. A circuit device comprising:
a first delay circuit for outputting data in response to a pulse of a clock signal; and
a signal processing circuit for processing said outputted data from said first delay circuit, a
signal processing circuit comprising a second delay circuit for outputting data in response to
said pulse of said clock signal,
- 10 wherein said circuit device comprises a control circuit for controlling whether said second
delay circuit should be supplied with said pulse of said clock signal on the basis of whether
outputted data from said first delay circuit in response to said pulse of said clock signal is
equal to data to be outputted from said first delay circuit in response to the next pulse.
- 15 2. A circuit device as claimed in claim 1, wherein said signal processing circuit
comprises a plurality of said second delay circuits, and wherein at least two second delay
circuits of said plurality of second delay circuits are cascaded.
3. A circuit device as claimed in claim 2, wherein each of said at least two second delay
20 circuits comprises a plurality of data inputting portions for receiving data and a plurality of
data outputting portions for outputting data.
4. A circuit device as claimed in claim 1, wherein said signal processing circuit
comprises a plurality of said second delay circuits,
- 25 and wherein said signal processing circuit further comprises a logic circuit having an
inputting portion for receiving outputted data from one second delay circuit of said plurality
of second delay circuits and an outputting portion for outputting data to another second delay
circuit of said plurality of second delay circuits.
- 30 5. A circuit device as claimed in claim 4, wherein said one second delay circuit has a
plurality of data outputting portions,
wherein said another second delay circuit has a plurality of data inputting portions,
and wherein said logic circuit has a plurality of inputting portions for receiving outputted
data from said plurality of data outputting portions of said one second delay circuit and a

plurality of outputting portions for outputting data to said plurality of data inputting portions of said another second delay circuit.

6. A circuit device as claimed in any one of claims 1 to 5, wherein said control circuit comprises:

a deciding circuit for deciding whether said second delay circuit should be supplied with said pulse of said clock signal on the basis of whether said outputted data from said first delay circuit in response to said pulse of said clock signal is equal to said data to be outputted from said first delay circuit in response to the next pulse; and

a clock driver for allowing or blocking supply of said pulse of said clock signal to said second delay circuit in accordance with a decision of said deciding circuit.

7. A circuit device as claimed in claim 6, wherein said deciding circuit comprises:

a judging section for judging whether said outputted data from said first delay circuit in response to each pulse of said clock signal is equal to said data to be outputted in said first delay circuit in response to the next pulse,

a counter for incrementing a count value when said judging section judges both data to be equal and resetting a counter value when said judging section judges both data not to be equal; and

a control signal generating section for comparing said count value with a comparison value to obtain a comparison result and for outputting, on the basis of said comparison result, a pulse supply controlling signal representing whether said second delay circuit should be supplied with said pulse of said clock signal.

8. A circuit device as claimed in claim 7, wherein said comparison value corresponds to a total number of said second delay circuits.

9. A circuit device as claimed in any one of claims 1 to 8, wherein each of said first delay circuits and second delay circuits is constructed by one or more D flip-flops.